

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number  
**WO 2005/006247 A1**

(51) International Patent Classification<sup>7</sup>: **G06K 19/073**,  
19/18

(21) International Application Number:  
PCT/IB2004/002279

(22) International Filing Date: 12 July 2004 (12.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03291741.1 15 July 2003 (15.07.2003) EP

(71) Applicant (for all designated States except US): AXALTO  
S.A. [FR/FR]; 50 avenue Jean-Jaurès, F-92120 Montrouge  
(FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SALIB, Rami  
[FR/FR]; 7 rue Vieille Levée, F-45000 Orléans (FR).  
DELOCHE, Manuel [FR/FR]; 4 rue Georges Pompidou,  
F-45100 Orléans (FR).

(74) Common Representative: AXALTO S.A.; YQUEL, Vin-  
cent, 50 avenue Jean-Jaurès, F-92120 Montrouge (FR).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AI, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HN, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

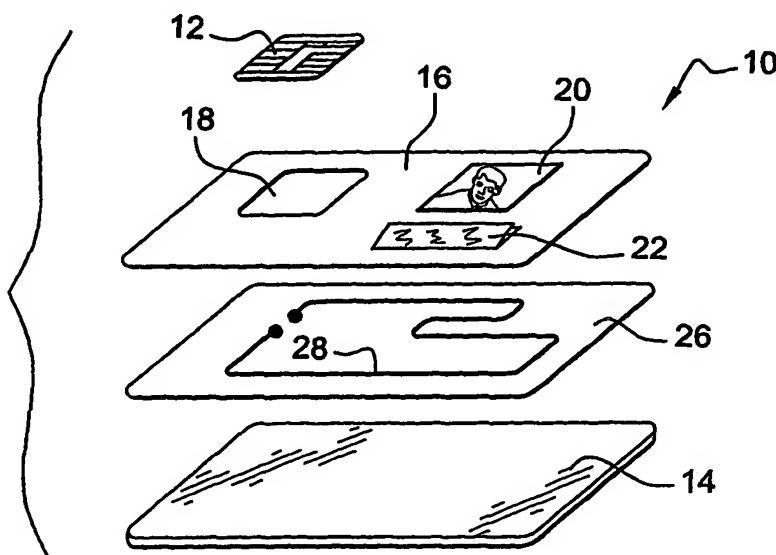
— of inventorship (Rule 4.17(iv)) for US only

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: CHIP CARD INCLUDING TAMPER-PROOF SECURITY FEATURES



(57) Abstract: The chip card comprises a card body (10) and a chip module (12) embedded in the card body and incorporating an integrated circuit. The card body includes at least one security feature (20, 22) incorporated in a layer, or applied on a surface, of the card body. An additional tamper-detection layer (26) is provided including a conductive pattern (28) forming an electrical loop connected between terminals of the integrated circuit, said conductive pattern having at least one region located beneath or above said security feature (20, 22). The integrated circuit is adapted to perform an integrity check of said conductive pattern for conditionally performing further operations only in case said integrity is recognized.

WO 2005/006247 A1